**Amendments to the Claims:**

1. and 2. (Cancelled)

3. (Currently Amended) ~~The method of color calibration of claim 2, wherein when the first value and the second value have a same sign in the step (2.3), the step (3) further comprises:~~

~~(3.1) adjusting the saturation parameter Pb until one of the following conditions is satisfied:~~

~~the first value and the second value have different signs; and~~

~~one of the first value and the second value is zero.~~A method of color calibration for calibrating an input color into a target color, the target color being represented by a first coordinate pair (X1, Y1) in a color coordinate system, the method of color calibration comprising the steps of:

(1) inputting the input color, the input color being represented by a second coordinate pair (X2, Y2) in the color coordinate system and being adjusted by a saturation parameter Pb and a chrominance parameter Pr;

(2) respectively comparing X1 with X2 and comparing Y1 with Y2 to obtain a state, further comprising:

(2.1) subtracting X1 from X2 to derive a first value; and

(2.2) subtracting Y1 from Y2 to derive a second value; and

(3) when the first value and the second value have a same sign, adjusting the saturation parameter Pb until one of the following conditions is satisfied: the first value and the second value have different signs; and one of the first value and the second value is zero, and then respectively adjusting the saturation parameter Pb and the chrominance parameter Pr in response to the state until X1 = X2 and Y1 = Y2.

4. (Currently Amended) The method of color calibration of claim 3, ~~wherein~~ when the first value and the second value are larger than zero in step (2.3), the step (3.1) further ~~comprises~~comprising:

(4.1) decreasing the saturation parameter Pb to satisfy one of a first condition and a second condition;

~~wherein~~ the first condition ~~comprises~~comprising that the first value is not larger than zero, and the second condition ~~comprises~~comprising that the second value is not larger than zero.

5. (Currently Amended) The method of color calibration of claim 4, ~~wherein~~ the step (4.1) further ~~comprises~~comprising:

(5.1) assigning a half of a difference between Y1 and Y2 as a Dy value when the first condition is satisfied; and

(5.2) decreasing the saturation parameter Pb until the difference between Y1 and Y2 is not larger than the Dy value.

6. (Currently Amended) The method of color calibration of claim 4, ~~wherein~~ the step (4.1) further ~~comprises~~comprising:

(6.1) assigning a half of a difference between X1 and X2 as a Dx value when the second condition is satisfied; and

(6.2) decreasing the saturation parameter Pb until the difference between X1 and X2 is not larger than the Dx value.

7. (Currently Amended) The method of color calibration of claim 3, ~~wherein~~ when the first value and the second value are less than zero in the step (2.3), the step (3.1) further ~~comprises~~comprising:

(7.1) increasing the saturation parameter Pb to satisfy one of a third condition and a fourth condition;

~~wherein~~the third condition ~~comprises~~comprising that the first value is not less than zero, and the fourth condition ~~comprises~~comprising that the second value is not less than zero.

8. (Currently Amended) The method of color calibration of claim 7, ~~wherein~~ the step (7.1) further ~~comprises~~comprising:

(8.1) assigning a half of a difference between Y1 and Y2 as a Dy value when the third condition is satisfied; and

(8.2) increasing the saturation parameter Pb until the difference between Y1 and Y2 is not less than the Dy value.

9. (Currently Amended) The method of color calibration of claim 7, ~~wherein~~ the step (7.1) further ~~comprises~~comprising:

(9.1) assigning a half of a difference between X1 and X2 as a Dx value when the fourth condition is satisfied; and

(9.2) increasing the saturation parameter Pb until the difference between X1 and X2 is not less than the Dx value.

10. (Currently Amended) ~~The method of color calibration of claim 2, wherein when the first value and the second value have different signs in the step (2.3), the step (3) further comprises:~~

~~(3.2) adjusting the chrominance parameter Pr until one of the following conditions is satisfied:~~

~~the first value and the second value have a same sign; and~~

~~one of the first value and the second value is zero.~~A method of color calibration for calibrating an input color into a target color, the target color being represented by a first coordinate pair (X1, Y1) in a color coordinate system, the method of color calibration comprising the steps of:

(1) inputting the input color, the input color being represented by a second coordinate pair (X2, Y2) in the color coordinate system and being adjusted by a saturation parameter Pb and a chrominance parameter Pr;

(2) respectively comparing X1 with X2 and comparing Y1 with Y2 to obtain a state, further comprising:

(2.1) subtracting X1 from X2 to derive a first value; and

(2.2) subtracting Y1 from Y2 to derive a second value; and

(3) when the first value and the second value have different signs, adjusting the chrominance parameter Pr until one of the following conditions is satisfied: the first value and the second value have a same sign; and one of the first value and the second value is zero, and then respectively adjusting the saturation parameter Pb and the chrominance parameter Pr in response to the state until X1 = X2 and Y1 = Y2.

11. (Currently Amended) The method of color calibration of claim 10, ~~wherein~~ when the first value is larger than zero and the second value is less than zero in the step (2.3), the step (3.2) further ~~comprises~~comprising:

(11.1) increasing the chrominance parameter Pr to satisfy one of a fifth condition and a sixth condition;

~~wherein~~ the fifth condition ~~comprises~~comprising that the first value is not larger than zero, and the sixth condition ~~comprises~~comprising that the second value is not less than zero.

12. (Currently Amended) The method of color calibration of claim 11, ~~wherein~~ the step (11.1) further ~~comprises~~comprising:

(12.1) assigning a half of a difference between Y1 and Y2 as a Dy value when the fifth condition is satisfied; and

(12.2) increasing the saturation parameter Pb until the difference between Y1 and Y2 is not less than the Dy value.

13. (Currently Amended) The method of color calibration of claim 11, ~~wherein~~ the step (11.1) further ~~comprises~~comprising:

(13.1) assigning a half of a difference between X1 and X2 as a Dx value when the sixth condition is satisfied; and

(13.2) decreasing the saturation parameter Pb until the difference between X1 and X2 is not larger than the Dx value.

14. (Currently Amended) The method of color calibration of claim 10, ~~wherein~~ when the first value is less than zero and the second value is larger than zero in the step (2.3), the step (3.2) further ~~comprises~~comprising:

(14.1) decreasing the chrominance parameter Pr to satisfy one of a seventh condition and an eighth condition;

~~wherein~~ the seventh condition ~~comprises~~comprising that the first value is not less than zero, and the eighth condition ~~comprises~~comprising that the second value is not larger than zero.

15. (Currently Amended) The method of color calibration of claim 14, ~~wherein~~ the step (14.1) further ~~comrpises~~comprising:

(15.1) assigning a half of a difference between Y1 and Y2 as a Dy value when the seventh condition is satisfied; and

(15.2) decreasing the saturation parameter Pb until the difference between Y1 and Y2 is not less than the Dy value.

16. (Currently Amended) The method of color calibration of claim 14, ~~wherein~~ the step (14.1) further ~~comprises~~comprising:

(16.1) assigning a half of a difference between X1 and X2 as a Dx value when the eighth condition is satisfied; and

(16.2) increasing the saturation parameter Pb until the difference between X1 and X2 is not larger than the Dx value.

17. (Currently Amended) The method of color calibration of claim ~~1~~3, ~~wherein~~ the step (3) further ~~comprises~~comprising:

(3.3) adjusting the chrominance parameter Pr until X1 = X2 and Y1 = Y2.

18. (Currently Amended) The method of color calibration of claim ~~1~~3, ~~wherein,~~ when the saturation parameter Pb is increased, an increment of X2 ~~is~~being equal to an increment of Y2, and when the saturation parameter Pb is decreased, a decrement of X2 ~~is~~being equal to a decrement of Y2.

19. (Currently Amended) The method of color calibration of claim ~~1~~3, ~~wherein,~~ when the chrominance parameter Pr is increased, a decrement of X2 ~~is~~being equal to an increment of Y2, and when the chrominance parameter Pr is decreased, an increment of X2 ~~is~~being equal to a decrement of Y2.

20. (Currently Amended) An apparatus for color calibration for calibrating an input color into a target color, the target color being represented by a first coordinate pair (X1, Y1) in a color coordinate system, the apparatus of color calibration comprising:

an input device for inputting the input color, the input color being represented by a second coordinate pair (X2, Y2) in the color coordinate system and being adjusted by a saturation parameter Pb and a chrominance parameter Pr;

a comparison device for obtaining the state by subtracting X1 from X2 to derive a first value and subtracting Y1 from Y2 to derive a second value; and

an adjustment device for respectively adjusting the saturation parameter Pb and the chrominance parameter Pr in response to the state until X1 = X2 and Y1 = Y2, and~~:~~ when the first value and the second value have a same sign, adjusting the saturation parameter Pb until one of the following conditions is satisfied: the first value and the second value have different signs; and one of the first value and the second value is zero; or

when the first value and the second value have different signs, adjusting the chrominance parameter Pr until one of the following conditions is satisfied: the first value and the second value have a same sign; and one of the first value and the second value is zero.

21. and 22. (Cancelled)

23. (Currently Amended) The apparatus for color calibration of claim ~~22~~20, ~~wherein,~~ when the comparison device evaluates that the first value and the second value are larger than zero, the adjustment device ~~decreases~~decreasing the saturation parameter Pb to satisfy one of a first condition and a second condition, the first condition ~~comprises~~comprising that the first value is not greater than zero, and the second condition ~~comprises~~comprising that the second value is not greater than zero.

24. (Currently Amended) The apparatus for color calibration of claim 23, ~~wherein~~ when the first condition is satisfied, the adjustment device further ~~assigns~~assigning a half of a difference between Y1 and Y2 as a Dy value and ~~decreases~~decreasing the saturation parameter Pb until the difference between Y1 and Y2 is not greater than the Dy value.

25. (Currently Amended) The apparatus for color calibration of claim 23, ~~wherein~~ when the second condition is satisfied, the adjustment device further ~~assigns~~assigning a half of a difference between X1 and X2 as a Dx value and ~~decreases~~decreasing the saturation parameter Pb until the difference between X1 and X2 is not greater than the Dx value.

26. (Currently Amended) The apparatus for color calibration of claim ~~22~~20, ~~wherein,~~ when the comparison device evaluates that the first value and the second value are less than zero, the adjustment device ~~increases~~increasing the saturation parameter Pb to satisfy one of a third condition and a fourth condition, the third condition ~~comprises~~comprising that the first value is not less than zero, and the fourth condition ~~comprises~~comprising that the second value is not less than zero.

27. (Currently Amended) The apparatus for color calibration of claim 26, ~~wherein~~ when the third condition is satisfied, the adjustment device further ~~assigns~~assigning a half of a difference between Y1 and Y2 as a Dy value and ~~increases~~increasing the saturation parameter Pb until the difference between Y1 and Y2 is not less than the Dy value.

28. (Currently Amended) The apparatus for color calibration of claim 26, ~~wherein~~ when the fourth condition is satisfied, the adjustment device further ~~assigns~~assigning a half of a difference between X1 and X2 as a Dx value and ~~increases~~increasing the saturation parameter Pb until the difference between X1 and X2 is not less than the Dx value.

29. (Cancelled)

30. (Currently Amended) The apparatus for color calibration of claim ~~29~~20, ~~wherein,~~ when the comparison device evaluates that the first value is greater than zero and the second value is less than zero, the adjustment device ~~increases~~increasing the chrominance parameter Pr to satisfy one of a fifth condition and a sixth condition, the fifth condition ~~comprises~~comprising that the first value is not greater than zero, and the sixth condition ~~comprises~~comprising that the second value is not less than zero.

31. (Currently Amended) The apparatus for color calibration of claim 30, ~~wherein~~ when the fifth condition is satisfied, the adjustment device further ~~assigns~~assigning a half of a difference between Y1 and Y2 as a Dy value and ~~increases~~increasing the saturation parameter Pb until the difference between Y1 and Y2 is not less than the Dy value.

32. (Currently Amended) The apparatus for color calibration of claim 30, ~~wherein~~ when the sixth condition is satisfied, the adjustment device further ~~assigns~~assigning a half of a difference between X1 and X2 as a Dx value and ~~decreases~~decreasing the saturation parameter Pb until the difference between X1 and X2 is not greater than the Dx value.

33. (Currently Amended) The apparatus for color calibration of claim ~~29~~20, ~~wherein,~~ when the comparison device evaluates that the first value is less than zero and the second value is greater than zero, the adjustment device ~~decreases~~decreasing the chrominance parameter Pr to satisfy one of a seventh condition and an eighth condition, the seventh condition ~~comprises~~comprising that the first value is not less than zero, and the eighth condition ~~comprises~~comprising that the second value is not greater than zero.

34. (Currently Amended) The apparatus for color calibration of claim 33, ~~wherein~~ when the seventh condition is satisfied, the adjustment device further ~~assigns~~assigning a half of a difference between Y1 and Y2 as a Dy value and ~~decreases~~decreasing the saturation parameter Pb until the difference between Y1 and Y2 is not less than the Dy value.

35. (Currently Amended) The apparatus for color calibration of claim 33, ~~wherein~~ when the eighth condition is satisfied, the adjustment device further ~~assigns~~assigning a half of a difference between X1 and X2 as a Dx value and ~~increases~~increasing the saturation parameter Pb until the difference between X1 and X2 is not greater than the Dx value.

36. (Currently Amended) The apparatus for color calibration of claim 20, ~~wherein~~ the adjustment device further ~~adjusts~~adjusting the chrominance parameter Pr until X1 = X2 and Y1 = Y2.